



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,660	12/04/2003	Tatsuya Nakagawa	007324-0307160	5836

909 7590 03/28/2006

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

PHAN, THANH S

ART UNIT PAPER NUMBER

2841

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,660

Applicant(s)

NAKAGAWA, TATSUYA

Examiner

Thanh S. Phan

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukui et al. [US 3978375] in view of Coucoulas [US 3,959,874] and Ebbert [US 3,898,535].

Fukui discloses a component mounting circuit board comprising a circuit pattern including a plurality of electrically conductive plates [1] having two opposite sites [not explicitly labeled]; and a resin molded section made of a resin by way of molding so as to cover the circuit pattern and the inner electrical component [6], the resin molded section having an opening [3] allowing an outer electrical component [4] located outside the resin molded section to be connected to the circuit pattern therethrough.

Fukui discloses the claimed invention except for an inner electrical component electrically connected to the circuit pattern; and wherein the circuit pattern includes a portion corresponding to the other side of the inner electrical component and provided with a thicker metal portion thicker than a remaining portion of said other side of the inner electrical component; and wherein the thicker metal portion is provided with an exposed outside the resin molded section.

Coucoulas discloses an inner electrical component [circuit chip 11] within a molded structure electrically connected to a circuit pattern.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Fukui's circuit with Coucoulas' teachings for the purpose of providing addition capacities in conjunction with connection to additional devices.

Ebbert discloses a mounting structure for electronic components [figure 3] wherein the circuit pattern includes a thicker portion [26] projected outside of the parameter of the mounting structure on the other side of the inner electrical component.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate Ebbert's teaching with Fukui and Coucoulas for the purpose of providing electrical connection with addition devices.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukui et al. [US 3978375] in view of Coucoulas [US 3,959,874].

Fukui discloses a component mounting circuit board comprising a circuit pattern including a plurality of electrically conductive plates [1] having two opposite sites [not explicitly labeled]; and a resin molded section made of a resin by way of molding so as to cover the circuit pattern and the inner electrical component [6], the resin molded section having an opening [3] allowing an outer electrical component [4] located outside the resin molded section to be connected to the circuit pattern therethrough.

Fukui discloses the claimed invention except for an inner electrical component electrically connected to the circuit pattern; and wherein the circuit pattern includes a portion corresponding to the other side of the inner electrical component and provided with a thicker metal portion thicker than a remaining portion of said other side of the

inner electrical component; and wherein the thicker metal portion is embedded in the resin molding and the resin molded section includes a portion located outside the thicker metal portion, said portion being thinner than a remaining portion of the resin molded resin.

Coucoulas discloses an inner electrical component [11] within a molded structure electrically connected to metal conductive pattern [23, 24 and 26] wherein the exposed portion [24] is thinner than the portion embedded in the structure on the other side of the inner electrical component.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Fukui's circuit with Coucoulas' teachings for the purpose of providing addition capacities in conjunction with connection to addition devices.

Response to Arguments

Applicant's arguments filed 01/03/06 have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As stated in the above the rejections, the Fukui reference and its combination disclose the claimed invention. Furthermore, the applicant fails to specifically point out how the newly amended language of these claims patentably differentiates themselves from the applied art and thus the rejection is upheld.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

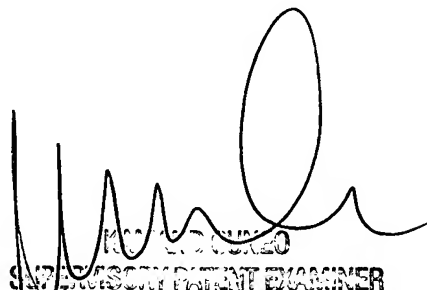
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh S. Phan whose telephone number is 571-272-2109. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2841

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tsp



MAILED 05/20/20
SUPERVISOR PATENT EXAMINER
TECHNOLOGY CENTER 2300